

(1) GENERATOR NAME UMETCO Minerals Corp

ADDRESS 137 4TH Street

CITY Niagara Falls, NY STATE N.Y 14302

CONTACT G.E. Walck PHONE 716-278-3361

(2) consigned to
CHEM NUCLEAR SYSTEMS, INC
P O BOX 726 OSBORN ROAD
BARNWELL, S.C. 29812

BARNWELL WASTE MANAGEMENT FACILITY

Operated by CHEM NUCLEAR SYSTEMS, INC
P O Box 726, Barnwell, South Carolina 29812
(803) 259 1781

RADIOACTIVE SHIPMENT MANIFEST FORM

(3) USE THIS NUMBER ON
ALL CONTINUATION PAGES

VOLUME ALLOCATION NO
0884-322A PAGE 1
OF 2

(4) CARRIER TBMT ADDRESS Joplin, Mo.
TELEPHONE 1-810-644-7591 SHIPPING DATE Aug 14, 1984
SHIPMENT TYPE YAN SHIPMENT SURFACE EXPOSURE .05 mR/hr
SHIPMENT NO 615-300 LINER SERIAL NO NA
DRIVER SIGNATURE R. E. Walck DATE 8-14-84

(5) TOTAL FOR EACH CLASS		PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	ID NUMBER
NO OF PACKAGES	WEIGHT (Pounds)		
		Radioactive Material, empty packages	UN2908
		Radioactive Material, fissile, n.o.s. — Radioactive Material	UN2918
<u>B</u>	<u>42,515</u>	Radioactive Material, low specific activity, n.o.s. — Radioactive Material	UN2912
		Radioactive Material, n.o.s. — Radioactive Material	UN2982
		Radioactive Material, limited quantity, n.o.s. — Radioactive Material	UN2910
		Radioactive Material, special form, n.o.s. — Radioactive Material	UN2974
		Radioactive Material, instruments and articles — Radioactive Material	UN2911
		Other (Specify)	

(6) SHIPMENT TOTALS								SOURCE (Pounds)
VOLUME (Cubic Feet)	TOTAL NO OF PACKAGES	ACTIVITY (10CFR 20.311)						
		ALL ISOTOPIES	TRITIUM	C-14	Tc-99	I-129		
520	8	754 068	0	0	0	0	.8	

(7) TOTAL SNM	
ISOTOPE	GRAMS
U 233	<u>0</u>
U 235	<u>0</u>
TOTAL	<u>0</u>

(9) WASTE DESCRIPTION Contaminated Building rubble/plant hardware (10) PHYSICAL FORM/SOLIDIFICATION AGENT DAW / solid

(13) ☒ Yes () No THIS VEHICLE IS CONSIGNED EXCLUSIVE USE LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT

(14) IMPORTANT This is to certify that the above named materials are properly classified described packaged marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

Signature Earl E. Reagan G.E. Walck agent for Umetco Minerals Corp
Company Umetco Minerals Corp Date 8-14-84

(11) CHEMICAL FORM AND NAME AND % OF CHELATING AGENT(S) METAL Oxides

(12) WASTE FORM CLASS ☒ A ☐ B ☐ C

(15) Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low level radioactive waste has been inspected in accordance with the requirements of South Carolina Radioactive Material License No. 097 as amended and the Nuclear Regulatory Commission's License No. 12-13536-01 as amended and the effective Barnwell Site Disposal Criteria within 48 hours prior to shipment and further certification is made that the inspection revealed no items of non compliance with all applicable laws rules and regulations

Date 8-14-84 By Earl E. Reagan for G.E. Walck
Title and Organization agent for Umetco Minerals Corp
Telephone No (803) 256-4355 / 716-278-3361

CNSI USE ONLY

- ☒ This material meets all license requirements
☒ This material was disposed of in accordance with license
☐ Discrepancy None

AUG 24 1984

Date 8-23-84

Authorized Signature

Title

UCCNHT0002504

GENERATOR NAME LANE TCO Mineral Corp

BARNWELL WASTE MANAGEMENT FACILITY
Operated by CHEM NUCLEAR SYSTEMS, INC

USE THIS NUMBER ON VOLUME ALLOCATION NO
ALL CONTINUATION PAGES

CONTINUATION SHEET

PAGE 2 OF 2

(16) ITEM NO	(17) RADIO NUCLIDE EACH CONTAINER	(18) PERCENT OF ACTIVITY EACH NUCLIDE	(19) ACTIVITY EACH CONTAINER (mCi)	(20) PHYSICAL FORM	(21) CHEMICAL FORM AND NAME & # OF CHLORINATING AGENTS	(22) WASTE DESCRIPTION	(23) WASTE FORM CLASS	(24) STABILITY CLASS (S U)	(25) SPECIAL NUCLEAR MATERIAL (RT-1115)	(26) SOURCE MATERIAL (pounds)	(27) DISPOSABLE CONTAINER WEIGHT (pounds)	(28) DISPOSABLE CONTAINER VOLUME (Cu Ft)	(29) CONTAINER TYPE	(30) RADIATION LEVELS CONTAINER (11) SURFACE 1 METER SURFACE 100 METER CR/HR	(31) CONTAMINATION CONTAINER SURFACE (DPM/100-cm ²) Alpha Beta Gamma	(32) DO T SUB TYPE (A1 A2 LSA etc)	(33) FISSILE CLASS	(34) LABELS/ MARKINGS USED
UMB4																		
101	U-238	NA	.0028	Solid	Metal	Contaminated	A	U	NA	0.1	5840	6.5	Strong	.018	.010	LSA	NA	Radioactive - LSA
	Th-232		.004		Oxides	Building Rubble/ plant hardware							Tight S.C.					Radioactive -
102	U-238										5855			.050	.016			Radioactive -
	Th-232																	Radioactive -
103	U-238										4916			.070	.019			Radioactive -
	Th-232																	Radioactive -
104	U-238										5310			.070	.023			Radioactive -
	Th-232																	Radioactive -
105	U-238										4783			.015	.011			Radioactive -
	Th-232																	Radioactive -
106	U-238										5264			.050	.020			Radioactive -
	Th-232																	Radioactive -
107	U-238										5315			.065	.019			Radioactive -
	Th-232																	Radioactive -
108	U-238										5182			.055	.018			Radioactive -
	Th-232																	Radioactive -
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8			.054							0	1.8	42515	520		.146			
						PAGE TOTALS												

FREIGHT BILL NUMBER

[illegible]

SHIPPER'S NUMBER

EXECUTIVE OFFICES

EXECUTIVE OFFICES
P O BOX 113 JOPLIN MO 64801

CONSIGNED TO

(Mail or street address of consignee - For purposes of notification, only)

Subject to Section 7 of conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(To be filled in only when shipper desires and governing tariffs provide for delivery thereat.)

DELIVERING CARRIER

TRACTOR NO

TRAILER NO

NUMBER OF PACKAGES	KIND OF PACKAGE				DESCRIPTION OF ARTICLES, SPECIAL MARKS AND EXCEPTIONS	WEIGHT (Subject to Correction)	CLASS OR RATE	CK COL	(Signature of consignor)
8	11				11	42.215			If charges are to be prepaid write or stamp here To be Prepaid
									Rec'd \$ _____ to _____ apply in prepayment of the charges on the property described hereon
									Agent or Cashier
									Per _____ (The signature here acknowledges only the amount prepaid.)
DIMENSIONS OF CARGO BEFORE LOADED	LENGTH		WIDTH		HEIGHT		TOTAL FEET OF TRAILER SPACE OCCUPIED		Charges advanced \$ _____
	FT	IN	FT	IN	FT	IN	FT	IN	

UNLESS A GREATER VALUE IS DECLARED, THE SHIPPER HEREBY RELEASES THE VALUE TO \$5000.00 PER TON OF 2000 POUNDS FOR EACH ARTICLE.

THIS IS TO CERTIFY THAT THE ABOVE NAMED MATERIALS ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED, AND
 LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION, ACCORDING TO THE APPLICABLE REGULATION OF THE DE-
 PARTMENT OF TRANSPORTATION

UNLESS OTHERWISE NOTED VEHICLE CONTAINS HAZARDOUS MATERIALS PROPERLY PLACARDED IN ACCORDANCE WITH 49CFR172.506

ARRIVED AT SHIPPER	DATE 4-15-84	TIME 7:11 AM	PRFARRANGED SCHEDULE	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	DATE 4-15-84	TIME 7:00 AM	LOADING STARTED	DATE 4-15-84	TIME 7:00 AM
LOADING COMPLETED	DATE 4-15-84	TIME 7:11 AM	VEHICLE RELEASED	DATE 4-15-84	TIME 7:45 AM	SHIPPER'S SIGNATURE J.E. Walke			
IF THIRD PARTY BILLING, BILL TO					SHIPPER PER		AGENT PER		

SIGNATURE TALLY RECEIPT — Must be filled out and signed at origin and each time the shipment changes custody

DATE SHIPMENT RECEIVED FROM CONSIGNOR										1ST TIME CARGO CHANGED CUSTODY										2ND TIME CARGO CHANGED CUSTODY										3RD TIME CARGO CHANGED CUSTODY										4TH TIME CARGO CHANGED CUSTODY																			
DATE					TIME					TRACTOR NO					DATE					TIME					TRACTOR NO					DATE					TIME					TRACTOR NO																			
DRIVER'S SIGNATURE										HOME TERMINAL										DRIVER'S SIGNATURE										HOME TERMINAL										DRIVER'S SIGNATURE										HOME TERMINAL									
DRIVER'S SIGNATURE										HOME TERMINAL										DRIVER'S SIGNATURE										HOME TERMINAL										DRIVER'S SIGNATURE										HOME TERMINAL									
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DRIVER'S SIGNATURE										HOME TERMINAL										DRIVER'S SIGNATURE										HOME TERMINAL										DRIVER'S SIGNATURE										HOME TERMINAL									
ARRIVED AT CONSIGNEE					DATE					TIME A M P M					REARRANGED SCHEDULE					<input type="checkbox"/> YES <input type="checkbox"/> NO					DATE					TIME A M P M					UNLOADING STARTED					DATE					TIME A M P M														
UNLOADING COMPLETE					DATE					TIME A M P M					VEHICLE RELEASED					DATE					TIME A M P M					CONSIGNEE'S SIGNATURE																													
RECEIVED THE ABOVE DESCRIBED PROPERTY IN GOOD CONDITION EXCEPT AS NOTED																														X																													

Tri-State Motor Transit Company

Carrier's No 655860

Name of Carrier

RECEIVED, subject to the classifications and tariffs in effect on the date of the issue of this Bill of Lading

Umetco Minerals Corporation
METALS DIVISION
UNION CARBIDE CORPORATION

AT Marietta, Ohio

Aug. 14, 1984 From

Niagara Falls, NY

For use via carrier truck under the exclusive/sole use shipments/movements

the property described below, in apparent good order except as noted (contents and condition of contents of packages unknown), marked, consigned and destined as indicated below, which said carrier (the word carrier being understood through out this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Official, Southern Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail or a rail water shipment or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns

Consigned to CHEM-NUCLEAR SYSTEMS, INC.
Metals Division BARNWELL MANAGEMENT FACILITIES

SHIPPER'S ORDER NO

CUSTOMER'S ORDER NO

Destination XXXXX BARNWELL (Osborn Road) State XXXXXX S. Carolina County XXXXXX BARNWELL

Route

Delivering Carrier Tri-State Motor Transit Car or Vehicle Initials 2000 No 44543 Seal No 262501

No Packages	Kind of Package, Description of Articles, Special marks, and Exceptions	*Weight (Sub to correction)	†Class or Rate	Check Column	Subject to Section 7 of Conditions of applicable bill of lading if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges
8	Radioactive Materials, LSA n o s (520 cu. ft.) Radioactive Materials <u>U-235</u> U-Natural Uranium Thorium Residues (From Chemical Processing) 0-016 Max Curies per Package Less than one (1) pound source material - solid, metal oxide, contaminated building rubble, wood and plant equipment.				(Signature of consignor) If charges are to be prepaid write of stamp here "To Be Prepaid" Third Party XXXXXX (SEE BELOW)*
	This is to certify that the above named materials are properly classified described packaged marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation				Received \$ to apply in prepayment of the charges on the property described hereon
	Signed <u>G. E. Walck</u> (G. E. WALCK)				Agent or Cashier
	Vehicle assigned for sole use of consignor Do not load other freight on the vehicle do not transfer in route and do not break the seal on truck				Per (The signature here acknowledges only the amount prepaid)
	Carrier hereby acknowledges that prior to or at the time this shipment was offered for transportation the shipper provided or affixed, according to applicable regulations the required placards or orange panels (including prescribed identification numbers) for each hazardous material named hereon				Charges advanced \$ This shipment is correctly described Correct weight is _____ lbs Subject to verification by the *L. G. Evans Umetco Minerals Corp.
	Signed				P. O. Box 97 Niagara Falls, NY 14301

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____

METALS DIVISION
UNION CARBIDE CORPORATION

Umetco Minerals Corp.

Shipper

Per G. E. Walck
Permanent postoffice address of shipper UC 326-34 (G. E. Walck)

Per 8-14-84 Agent

UCCNHT0002507

Form RHA-PNC
(5/80)SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTRL
Radioactive Waste Shipment Prior Notification and Manifest Form

See Reverse Side for Instructions

1. Name and Address of Shipper Umetco Minerals Corporation 137 47th Street Niagara Falls, NY 14302		2. Person Responsible for Radioactive Waste Shipment (a) Name G. E. Walck (b) Title Construction Superintendent (c) Telephone No. (716) 278-3361	
3. Radioactive Waste Transport Permit No. 0211-31-84-X		4. Shipment Identification No.: 0884-322A	
5. Location from which waste will be shipped Same as (1) Above		6. Name and Address of Consignee Chem-Nuclear Systems, Inc. P.O. Box 726 Barnwell, South Carolina 29812	
7. Scheduled Date of Departure of Shipment August 14, 1984		8. Estimated Date of Arrival of Shipment August 16, 1984	
9. Carrier Tri-State Motor Transit	10. Type of Transport Vehicle Closed Van	11. Trailer No. and Owner (if available)	
12. Routes shipment will follow in State of South Carolina (Be Specific): I-20, I-26, US-321, S.C. 3 and S.C. 64			

Manifest Summary

13. Type Container or Cask Wood Boxes	14. Container Spec. CFR 49 173.392 (c)	15. Total No. of Containers 8
16. Waste Description, Physical and Chemical Form Metal Oxides, Bldg. Rubble, Wood and Plant Hardware	17. Prominent Radionuclides Uranium (Nat.) .0028 Thorium (Nat.) .004	
18. Total Curies .068	19. Transport Group III	20. Total Cubic Feet 520
21. Waste Classification <input checked="" type="checkbox"/> Radioactive LSA <input type="checkbox"/> Bulk LSA Normal Form Special Form Fissile <input type="checkbox"/> Radioactive LSA greater than Type A quantities <input type="checkbox"/> Limited quantities and radioactive devices <input type="checkbox"/> Type A quantity <input type="checkbox"/> Type B quantity <input type="checkbox"/> Large quantity <input type="checkbox"/> Type A quantity <input type="checkbox"/> Type B quantity <input type="checkbox"/> Large quantity <input type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III		

UN2912

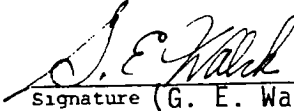
CERTIFICATION

I hereby certify on behalf of the above-named shipper to the South Carolina Department of Health and Environmental Control that the information provided herein is complete and correct to the best of my knowledge, and that the shipper has complied with all the provisions as required by Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act.

Date August 8, 1984

G. E. Walck - Construction Supt.

Typed Name and Title of Agent of Shipper


Signature (G. E. Walck)

CONSIGNEE ACKNOWLEDGEMENT

This acknowledges to the South Carolina Department of Health and Environmental Control that the above-described radioactive waste shipment was received

Date of Delivery

Signature of Consignee or authorized Agent

Typed or Printed Name and Title

DHEC 802
(5/80)

(Copies of this form may be reproduced locally as needed)

Original: S. Carolina
Copy: Chem-Nuclear

UCCNHT0002508

General Instructions and Information

1. This form is to be used to provide the Department with prior notification of radioactive waste shipments transported into or within the State of South Carolina. This notification is to be made 72 hours before the expected date of arrival in the State. All written notices should be mailed to:
Bureau of Radiological Health
Radioactive Waste Management Section
S.C. Dept. of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201
2. A separate form shall be submitted for each radioactive waste shipment.
3. Prior notification is required of all radioactive waste shipments as defined in paragraph 2 of Interim Regulations for the Transportation of Radioactive Waste into or within South Carolina except as provided in paragraph 4.1.2 of the Regulation.
4. The "Manifest Summary" portion of this form will satisfy requirements of providing the Department with a shipping manifest, however, it does not satisfy the requirements of shipping documents which shall accompany the shipments as required by DOT Regulations and the disposal facility's license and criteria.
5. A copy of this completed form shall be provided to the carrier and all drivers of the radioactive waste shipment.
6. Upon delivery of the shipment to the consignee, acknowledgement of receipt shall be obtained, and a copy of this form and the shipper/carrier's certification form shall be returned to the Department.

Specific Instructions

Item Number

1. Self Explanatory
2. Self Explanatory
3. This item applies to all shipments of radioactive waste transported to and within the State of South Carolina.
4. Each shipment of radioactive waste shall be identified in some manner by the shipper. This number can be a radioactive shipment record number, bill of lading number, allocation number, etc. The identification number shall only be used once to identify the one shipment for which notification is being made.
5. Self Explanatory
6. Indicate in this item the disposal facility, company, organization, etc., to which this shipment has been consigned.
7. Self Explanatory
8. For through shipments, indicate in this item estimated date shipment will pass through the state.
9. Self Explanatory
10. & 11. Applies only to exclusive use, sole use, and full load shipments.
12. All routing information must be specific. You should check with carrier to insure routes you prescribe are appropriate. The carrier is responsible to inform the Department of any changes of routes in South Carolina after departure.
- 13 thru 21. Self Explanatory

Certification: To be signed only by an authorized representative or agent of the shipper and carrier.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Radioactive Waste Shipment Certification Form

General Instructions and Information: This is a two part form to be used by shippers and carriers of radioactive waste. The certifications contained herein satisfy the requirements of Section 13-7-150, of Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act. This certification along with a copy of the prior notification form shall accompany each shipment of radioactive waste into and within the State of South Carolina. The shipper is to complete his portion of the form and present it to the carrier as part of the shipping documents. Upon receipt, the carrier shall complete his portion of the form. Upon delivery of the shipment to the consignee, a copy of this certification form, and a copy of the Prior Notification and Manifest form with the consignee acknowledgement, shall be returned to the Department.

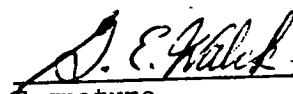
Part I: Shipper's Certificate of Compliance

1. Name of Shipper and Address: Umetco Minerals Corporation 137 47th Street Niagara Falls, NY 14302 Telephone No. (716) 278-3361	2. Shipment Identification No. 0884-322A
	3. Transport Permit No. 0211-31-84-X

In compliance with Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act, I hereby certify on behalf of the above-named shipper to the South Carolina Department of Health and Environmental Control that the above-named shipper has complied with all provisions of Act No. 499 of 1980, and all applicable laws and administrative rules and regulations, both State and Federal, regarding the packaging, transportation, storage, disposal and delivery of such wastes. I further certify that this shipment of radioactive waste has been inspected within 48 hours of the time of departure and that no items of non-compliance with applicable laws, rules or regulations were found.

Date August 14, 1984

G. E. Walck, Construction Superintendent
Typed Name and Title of Agent of Shipper


Signature (G. E. Walck)

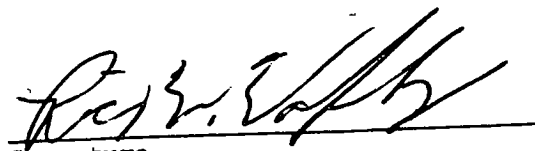
Part II: Carrier's Certification

1. Name of Carrier and Address: Tri-State Motor Transit Company P. O. Box 113 Joplin, Missouri 64801 Telephone No. (800) 641-7591	2. Shipment Identification No. 0884-322A
	3. Transport Trailer No. 444543
4. Scheduled Date of Departure of Shipment: August 14, 1984	5. Estimated Date of Arrival of Shipment: August 16, 1984

Certification is hereby made to the South Carolina Department of Health and Environmental Control that: (a) the shipper has provided the carrier with a copy of the shipment manifest, the certificate of compliance, and the routing instructions; (b) the shipment of radioactive waste has been properly placarded for transport according to applicable U.S. Department of Transportation Regulations; (c) all shipping papers originated or reproduced by the carrier have been properly executed; (d) the transport vehicle has been inspected according to applicable State and Federal regulations within the prescribed intervals and that all safety and operational components are in good working order and meet the requirements of regulations; (e) all drivers who will operate the vehicle within the State of South Carolina are qualified to transport hazardous materials as specified by applicable U.S. Department of Transportation regulations; (f) the Department shall be immediately notified of any variance, occurring after departure, from the shipper's notification of primary routes in South Carolina and estimated date of arrival; (g) all applicable laws and administrative rules and regulations, both State and Federal, regarding the transportation of radioactive wastes will be complied with.

Date August 14, 1984

Ricky Wofford, Driver
Typed or Printed Name and Title


Signature

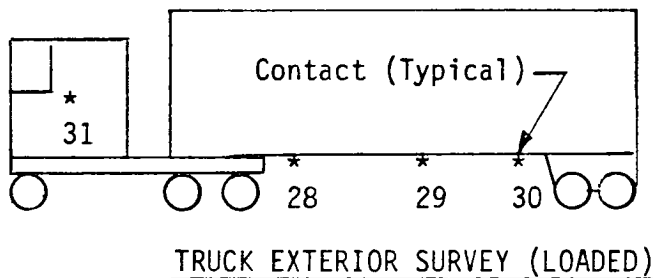
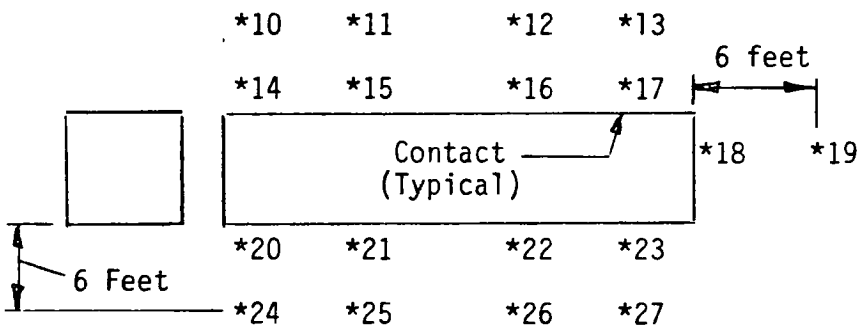
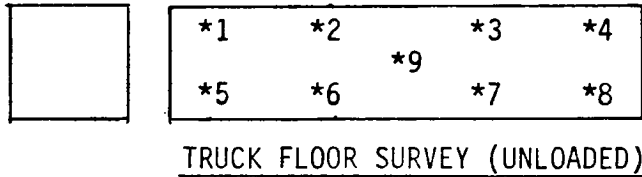
UMETCO MINERALS CORPORATION
NIAGARA FALLS, NEW YORK

DATE 8-14-84

TRACTOR NO. 2088

SHIPMENT NO. 615-3001

TRAILER NO. 444543



NO.	θ	β
1	.007	60
2	.007	—
3	.007	—
4	.007	60
5	.007	40
6	.007	—
7	.007	—
8	.007	60
9	—	80
10	.010	—
11	.013	—
12	.013	—
13	.013	—
14	.027	—
15	.016	—
16	.014	—
17	.026	—
18	.018	—
19	.010	—
20	.026	—
21	.018	—
22	.022	—
23	.025	—
24	.013	—
25	.012	—
26	.012	—
27	.012	—
28	.042	—
29	.012	—
30	.070	—
31	.005	—

LEGEND:

* Location of Reading

θ = mR/hr Ludlum Model 19 (S/N 22534)

β = dpm/100 cm² Ludlum Model 15 (S/N 28886)
w/Ludlum Model 44-9 Probe (S/N 12708) - Eff. 42%

J. E. Walsh
(Survey performed by)

UCCNHT0002511

Umetco Minerals Corporation
Niagara Falls, New York

Date 8-13-84

CONTAINER SURVEY

BOX CONTROL NO. UM84-101 BOX CAULKED YES

BOX BANDED YES BOX WEIGHT 5890

RADIATION SURVEY (Total)

CONTACT .048 mR/hr.

3 FEET .020 mR/hr.

INSTRUMENT Ludlum Model 19

SERIAL NUMBER 22534

RADIATION SURVEY (Removable)

SMEAR NO. A-23565

0 dpm/100cm² α

BKG dpm/100cm² β

INSTRUMENT NMC Model PC-55

SERIAL NUMBER 81-2712-05

Umetco Minerals Corporation
Niagara Falls, New York

Date 8-13-84

CONTAINER SURVEY

BOX CONTROL NO. UM 84 - 102 BOX CAULKED YES
BOX BANDED YES BOX WEIGHT 5855

RADIATION SURVEY (Total)

CONTACT .050 mR/hr.

3 FEET .016 mR/hr.

INSTRUMENT Ludlum Model 19

SERIAL NUMBER 22534

RADIATION SURVEY (Removable)

SMEAR NO. A - 23566

0 dpm/100cm² α

BKG dpm/100cm² β

INSTRUMENT NMC Model PC-55

SERIAL NUMBER 81-2712-05

Umetco Minerals Corporation
Niagara Falls, New York

Date 8-13-84

CONTAINER SURVEY

BOX CONTROL NO. UM 84-103 BOX CAULKED YES
BOX BANDED YES BOX WEIGHT 4916

RADIATION SURVEY (Total)

CONTACT .070 mR/hr.

3 FEET .019 mR/hr.

INSTRUMENT Ludlum Model 19

SERIAL NUMBER 22534

RADIATION SURVEY (Removable)

SMEAR NO. A-23567

0 dpm/100cm² α

BKG. dpm/100cm² β

INSTRUMENT NMC Model PC-55

SERIAL NUMBER 81-2712-05

Umetco Minerals Corporation
Niagara Falls, New York

Date 8-13-84

CONTAINER SURVEY

BOX CONTROL NO. UM 84-104 BOX CAULKED YES
BOX BANDED YES BOX WEIGHT 5310

RADIATION SURVEY (Total)

CONTACT . 070 mR/hr.

3 FEET . 023 mR/hr.

INSTRUMENT Ludlum Model 19

SERIAL NUMBER 22534

RADIATION SURVEY (Removable)

SMEAR NO. A-23568

0 dpm/100cm² \propto

BKG. dpm/100cm² β

INSTRUMENT NMC Model PC-55

SERIAL NUMBER 81-2712-05

Umetco Minerals Corporation
Niagara Falls, New York

Date 8-13-84

CONTAINER SURVEY

BOX CONTROL NO. UM 84 - 105 BOX CAULKED YES
BOX BANDED YES BOX WEIGHT 4783

RADIATION SURVEY (Total)

CONTACT .015 mR/hr.

3 FEET .011 mR/hr.

INSTRUMENT Ludlum Model 19

SERIAL NUMBER 22534

RADIATION SURVEY (Removable)

SMEAR NO. A - 23569

0 dpm/100cm² α

BKG dpm/100cm² β

INSTRUMENT NMC Model PC-55

SERIAL NUMBER 81-2712-05

UCCNHT0002516

Umetco Minerals Corporation
Niagara Falls, New York

Date 8-13-84

CONTAINER SURVEY

BOX CONTROL NO. UM 84-106 BOX CAULKED YES
BOX BANDED YES BOX WEIGHT 5264

RADIATION SURVEY (Total)

CONTACT .050 mR/hr.

3 FEET .020 mR/hr.

INSTRUMENT Ludlum Model 19

SERIAL NUMBER 22534

RADIATION SURVEY (Removable)

SMEAR NO. A-23570

0 dpm/100cm² α

BKG dpm/100cm² β

INSTRUMENT NMC Model PC-55

SERIAL NUMBER 81-2712-05

Umetco Minerals Corporation
Niagara Falls, New York

Date 8-13-84

CONTAINER SURVEY

BOX CONTROL NO. UM84-107 BOX CAULKED YES
BOX BANDED YES BOX WEIGHT 5315

RADIATION SURVEY (Total)

CONTACT .065 mR/hr.

3 FEET .019 mR/hr.

INSTRUMENT Ludlum Model 19

SERIAL NUMBER 22534

RADIATION SURVEY (Removable)

SMEAR NO. A-23571

0 dpm/100cm² α

BKG dpm/100cm² β

INSTRUMENT NMC Model PC-55

SERIAL NUMBER 81-2712-05

UCCNHT0002518

Umetco Minerals Corporation
Niagara Falls, New York

Date 8-13-84

CONTAINER SURVEY

BOX CONTROL NO. UM 84-108 BOX CAULKED YES
BOX BANDED YES BOX WEIGHT 5182

RADIATION SURVEY (Total)

CONTACT .055 mR/hr.

3 FEET .018 mR/hr.

INSTRUMENT Ludlum Model 19

SERIAL NUMBER 22534

RADIATION SURVEY (Removable)

SMEAR NO. A - 23572

0 dpm/100cm² α

BKG dpm/100cm² β

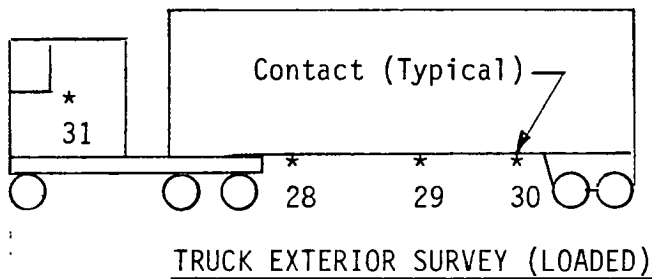
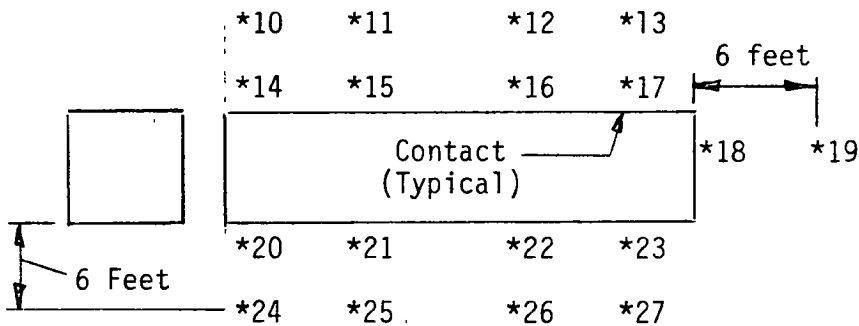
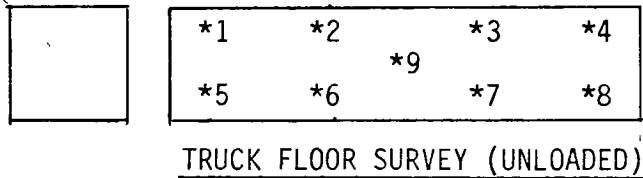
INSTRUMENT NMC Model PC-55

SERIAL NUMBER 81-2712-05

UMETCO MINERALS CORPORATION
NIAGARA FALLS, NEW YORK

DATE 8-14-84
SHIPMENT NO. 615-3001

TRACTOR NO. 2088
TRAILER NO. 444543



NO.	δ	B
1	.007	60
2	.007	—
3	.007	—
4	.007	60
5	.007	40
6	.007	—
7	.007	—
8	.007	60
9	—	80
10	.010	—
11	.013	—
12	.013	—
13	.013	—
14	.027	—
15	.016	—
16	.014	—
17	.026	—
18	.018	—
19	.010	—
20	.026	—
21	.018	—
22	.022	—
23	.025	—
24	.013	—
25	.012	—
26	.012	—
27	.012	—
28	.042	—
29	.012	—
30	.070	—
31	.065	—

LEGEND:

* Location of Reading

δ = mR/hr Ludlum Model 19 (S/N 22534)

B = dpm/100 cm² Ludlum Model 15 (S/N 28886)
w/Ludlum Model 44-9 Probe (S/N 12708) - Eff. 42%

J. E. Walsh
(Survey performed by)

UCCNHT0002520

(1) GENERATOR NAME UMETCO MINERALS Corp
ADDRESS 137 - 47th STREET

CITY Niagara Falls STATE NY 14302
CONTACT G R WALCK PHONE (716) 278-3361

(2) **consigned to**
CHEM NUCLEAR SYSTEMS, INC
P O BOX 726, OSBORN ROAD
BARNWELL, S C 29812

BARNWELL WASTE MANAGEMENT FACILITY
Operated by CHEM-NUCLEAR SYSTEMS, INC
P O Box 726, Barnwell, South Carolina 29812
(803) 259-1781
RADIOACTIVE SHIPMENT MANIFEST FORM

(3) USE THIS NUMBER ON
ALL CONTINUATION PAGES

VOLUME ALLOCATION NO
0884-323A

PAGE 1
OF 2

(4)

CARRIER TSM ADDRESS Doyle, Mo

TELEPHONE (800) 641-7591 SHIPPING DATE 8-15-84

SHIPMENT TYPE VAIL SHIPMENT SURFACE EXPOSURE .05 mR/hr

SHIPMENT NO 615-3002 LINER SERIAL NO NA

DRIVER SIGNATURE Bill 7. Ullrich DATE 8-15-84

(5) TOTAL FOR EACH CLASS		PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	ID NUMBER
NO OF PACKAGES	WEIGHT (Pounds)		
		Radioactive Material, empty packages	UN2908
		Radioactive Material, fissile, n o s —Radioactive Material	UN2918
<u>8</u>	<u>42.215</u>	Radioactive Material, low specific activity, n o s —Radioactive Material	UN2912
		Radioactive Material, n o s —Radioactive Material	UN2982
		Radioactive Material, limited quantity, n o s —Radioactive Material	UN2910
		Radioactive Material, special form, n o s —Radioactive Material	UN2974
		Radioactive Material, instruments and articles—Radioactive Material	UN2911
		Other (Specify)	

(6) SHIPMENT TOTALS							
VOLUME (Cubic Feet)	TOTAL NO OF PACKAGES	ACTIVITY (10CFR 20.311)					SOURCE (Pounds)
		ALL ISOTOPES	TRITIUM	C 14	Tc 99	I 129	
<u>520</u>	<u>8</u>	<u>.0544</u>	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>	<u>Ø</u>	<u>Ø.8</u>

(7) TOTAL SNM	
ISOTOPE	GRAMS
U 233	<u>NA</u>
U 235	<u>↓</u>
TOTAL	<u>↓</u>

(9) WASTE DESCRIPTION Contaminated Rubble (10) PHYSICAL FORM/
SOLIDIFICATION AGENT Solid DAW

(13) ☒ Yes () No THIS VEHICLE IS CONSIGNEE EXCLUSIVE USE LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT

(14) IMPORTANT "This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

Signature Earl E. Reagan Jr for G.R. Walck
Company agent for Umetco Minerals Corp Date 8-15-84

(11) CHEMICAL FORM AND
NAME AND % OF CHELATING AGENT(S) METAL Oxides

(12) WASTE FORM CLASS
☒ A ☐ B ☐ C

(15) "Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low level radioactive waste has been inspected in accordance with the requirements of South Carolina Radioactive Material License No 097 as amended, and the Nuclear Regulatory Commission's License No 12-13536 01 as amended, and the effective Barnwell Site Disposal Criteria within 48 hours prior to shipment and further certification is made that the inspection revealed no items of non compliance with all applicable laws, rules and regulations "

Date 8-15-84 By Earl E. Reagan Jr for G.R. Walck
Title and Organization Agent for Umetco Minerals Corp.
Telephone No (803) 256-4355 / (716) 278-3361

☒ This material meets all license requirements

☒ This material was disposed of in accordance with license

☐ Discrepancy None

AUG 24 1984

Date 8-23-84

Authorized Signature

Title

UCCNHT0002521

Form RHA-PNC
(5/80)SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTRL
Radioactive Waste Shipment Prior Notification and Manifest Form

See Reverse Side for Instructions

1. Name and Address of Shipper Umetco Minerals Corporation 137 47th Street Niagara Falls, NY 14302		2. Person Responsible for Radioactive Waste Shipment (a) Name G. E. Walck (b) Title Construction Superintendent (c) Telephone No (716) 278-3361	
3. Radioactive Waste Transport Permit No. 0211-31-84-X		4. Shipment Identification No. 0884-323A	
5. Location from which waste will be shipped Same as (1) Above		6. Name and Address of Consignee Chem-Nuclear Systems, Inc. P.O. Box 726 Barnwell, South Carolina 29812	
7. Scheduled Date of Departure of Shipment August 15, 1984		8. Estimated Date of Arrival of Shipment August 17, 1984	
9. Carrier Tri-State Motor Transit	10. Type of Transport Vehicle Closed Van	11. Trailer No. and Owner (if available)	
12. Routes shipment will follow in State of South Carolina (Be Specific) I-20, I-26, US-321, S.C. 3 and S.C. 64			

Manifest Summary			
13 Type Container or Cask Wood Boxes	14 Container Spec. CFR 49 173.392 (c)	15. Total No. of Containers 8	
16 Waste Description, Physical and Chemical Form Metal Oxides, Bldg. Rubble, Wood and Plant Hardware		17. Prominent Radionuclides Uranium (Nat.) .0028 Thorium (Nat.) .004	
18 Total Curies .068	19. Transport Group III	20. Total Cubic Feet 520	
21 Waste Classification			
<input checked="" type="checkbox"/> Radioactive LSA	<input type="checkbox"/> Bulk LSA	Normal Form	Special Form
<input type="checkbox"/> Radioactive LSA greater than Type A quantities	<input type="checkbox"/> Limited quantities and radioactive devices	<input type="checkbox"/> Type A quantity <input type="checkbox"/> Type B quantity <input type="checkbox"/> Large quantity	<input type="checkbox"/> Type A quantity <input type="checkbox"/> Type B quantity <input type="checkbox"/> Large quantity
		<input type="checkbox"/> Class I	<input type="checkbox"/> Class II <input type="checkbox"/> Class III

UN2912

CERTIFICATION

I hereby certify on behalf of the above-named shipper to the South Carolina Department of Health and Environmental Control that the information provided herein is complete and correct to the best of my knowledge, and that the shipper has complied with all the provisions as required by Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act.

Date August 8, 1984

G. E. Walck - Construction Supt.
Typed Name and Title of Agent of Shipper


Signature (G. E. Walck)

CONSIGNEE ACKNOWLEDGEMENT

This acknowledges to the South Carolina Department of Health and Environmental Control that the above-described radioactive waste shipment was received

Date of Delivery

Signature of Consignee or authorized Agent

Typed or Printed Name and Title

DHEC 802

Original: S. Carolina (5/80)
Copy: Chem-Nuclear
(Copies of this form may be reproduced locally as needed)

UCCNHT0002522

General Instructions and Information

1. This form is to be used to provide the Department with prior notification of radioactive waste shipments transported into or within the State of South Carolina. This notification is to be made 72 hours before the expected date of arrival in the State. All written notices should be mailed to:
Bureau of Radiological Health
Radioactive Waste Management Section
S.C. Dept. of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201
2. A separate form shall be submitted for each radioactive waste shipment.
3. Prior notification is required of all radioactive waste shipments as defined in paragraph 2 of Interim Regulations for the Transportation of Radioactive Waste into or within South Carolina except as provided in paragraph 4.1.2 of the Regulation.
4. The "Manifest Summary" portion of this form will satisfy requirements of providing the Department with a shipping manifest, however, it does not satisfy the requirements of shipping documents which shall accompany the shipments as required by DOT Regulations and the disposal facility's license and criteria.
5. A copy of this completed form shall be provided to the carrier and all drivers of the radioactive waste shipment.
6. Upon delivery of the shipment to the consignee, acknowledgement of receipt shall be obtained, and a copy of this form and the shipper/carrier's certification form shall be returned to the Department.

Specific Instructions

Item Number

1. Self Explanatory
2. Self Explanatory
3. This item applies to all shipments of radioactive waste transported to and within the State of South Carolina.
4. Each shipment of radioactive waste shall be identified in some manner by the shipper. This number can be a radioactive shipment record number, bill of lading number, allocation number, etc. The identification number shall only be used once to identify the one shipment for which notification is being made.
5. Self Explanatory
6. Indicate in this item the disposal facility, company, organization, etc., to which this shipment has been consigned.
7. Self Explanatory
8. For through shipments, indicate in this item estimated date shipment will pass through the state.
9. Self Explanatory
10. & 11. Applies only to exclusive use, sole use, and full load shipments.
12. All routing information must be specific. You should check with carrier to insure routes you prescribe are appropriate. The carrier is responsible to inform the Department of any changes of routes in South Carolina after departure.
- 13 thru 21. Self Explanatory

Certification: To be signed only by an authorized representative or agent of the shipper and carrier.

SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
Radioactive Waste Shipment Certification Form

General Instructions and Information: This is a two part form to be used by shippers and carriers of radioactive waste. The certifications contained herein satisfy the requirements of Section 13-7-150, of Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act. This certification along with a copy of the prior notification form shall accompany each shipment of radioactive waste into and within the State of South Carolina. The shipper is to complete his portion of the form and present it to the carrier as part of the shipping documents. Upon receipt, the carrier shall complete his portion of the form. Upon delivery of the shipment to the consignee, a copy of this certification form, and a copy of the Prior Notification and Manifest form with the consignee acknowledgement, shall be returned to the Department.

Part I: Shipper's Certificate of Compliance

1. Name of Shipper and Address: Umetco Minerals Corporation 137 47th Street Niagara Falls, NY 14302 Telephone No. (716) 278-3361	2. Shipment Identification No. 0884-323A
	3. Transport Permit No. 0211-31-84-X

In compliance with Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act, I hereby certify on behalf of the above-named shipper to the South Carolina Department of Health and Environmental Control that the above-named shipper has complied with all provisions of Act No. 499 of 1980, and all applicable laws and administrative rules and regulations, both State and Federal, regarding the packaging, transportation, storage, disposal and delivery of such wastes. I further certify that this shipment of radioactive waste has been inspected within 48 hours of the time of departure and that no items of non-compliance with applicable laws, rules or regulations were found.

Date August 15, 1984

G. E. Walck, Construction Superintendent
Typed Name and Title of Agent of Shipper

G. E. Walck
Signature (G. E. Walck)

Part II: Carrier's Certification

1. Name of Carrier and Address: Tri-State Motor Transit Company P. O. Box 113 Joplin, Missouri 64801 Telephone No. (800) 641-7591	2. Shipment Identification No. 0884-323A
	3. Transport Trailer No. 445104
4. Scheduled Date of Departure of Shipment: August 15, 1984	5. Estimated Date of Arrival of Shipment: August 17, 1984

Certification is hereby made to the South Carolina Department of Health and Environmental Control that: (a) the shipper has provided the carrier with a copy of the shipment manifest, the certificate of compliance, and the routing instructions; (b) the shipment of radioactive waste has been properly placarded for transport according to applicable U.S. Department of Transportation Regulations; (c) all shipping papers originated or reproduced by the carrier have been properly executed, (d) the transport vehicle has been inspected according to applicable State and Federal regulations within the prescribed intervals and that all safety and operational components are in good working order and meet the requirements of regulations; (e) all drivers who will operate the vehicle within the State of South Carolina are qualified to transport hazardous materials as specified by applicable U.S. Department of Transportation regulations; (f) the Department shall be immediately notified of any variance, occurring after departure, from the shipper's notification of primary routes in South Carolina and estimated date of arrival; (g) all applicable laws and administrative rules and regulations, both State and Federal, regarding the transportation of radioactive wastes will be complied with.

Date August 15, 1984

Bill F. Weiss Driver
Typed or Printed Name and Title

Bill F. Weiss
Signature

Tri-State Motor Transit Company

Name of Carrier

Umetco Minerals Corporation

AT ~~Marietta, Ohio~~
Niagara Falls, NY

Aug. 15, 19 84 From

METALS DIVISION
UNION CARBIDE CORPORATION

For use via carrier truck under the exclusive/sole use shipments/movements

the property described below in apparent good order, except as noted (contents and condition of contents of packages unknown), marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood through out this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any of said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Official, Southern, Western and Illinois Freight Classifications in effect on the date hereof, if this is a rail or a rail water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.

Shipper hereby certifies that he is familiar with all the terms and conditions of the said bill of lading, including those on the back thereof, set forth in the classification or tariff which governs the transportation of this shipment, and the said terms and conditions are hereby agreed to by the shipper and accepted for himself and his assigns.

Consigned to ~~CHEM-NUCLEAR SYSTEMS, INC.~~
~~UCC Metals Division~~ BARNWELL MANAGEMENT FACILITIES

SHIPPER'S ORDER NO.

CUSTOMER'S ORDER NO.

Destination ~~Gravan~~ BARNWELL (Osborn Road) State ~~Colorado~~ S. Carolina County ~~Montrose~~ BARNWELL

Route _____
Delivering Carrier Tri-State Motor Transit Car or Vehicle Initials 4097 No 445104 Seal No 262502

No Packages	Kind of Package, Description of Articles, Special marks, and Exceptions	*Weight (Sub to correction)	*Class or Rate	Check Column
8	Radioactive Materials, LSA, n o s (520 cu. ft.) Radioactive Material (UN 2912) U Natural Uranium/plutonium Residues (From) Chemical Processing 0.016 Max Cores per Package Less than one (1) pound source material - solid, metal oxide, contaminated building rubble, wood and plant equipment.			
This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.				
Signed <u>A. E. Walick</u>				
Vehicle assigned for sole use of consignor. Do not load other freight on the vehicle, do not transfer in route and do not break the seal on truck.				
Carrier hereby acknowledges that prior to or at the time this shipment was offered for transportation, the shipper provided or affixed, according to applicable regulations, the required placards or orange panels (including prescribed identification numbers) for each hazardous material named hereon.				
Signed <u>Billy J. H. Jones</u>				

Subject to Section 7 of Conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without recourse on the consignor, the consignor shall sign the following statement:

The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

(Signature of consignor)

If charges are to be prepaid, write of stamp here To Be Prepaid:
XXXXXXXXXXXX

Third Party
PREPAID (SEE BELOW)*

Received \$ _____
to apply in prepayment of the charges on the property described hereon.

Agent or Cashier

Per _____
(The signature here acknowledges only the amount prepaid.)

Charges advanced

\$ _____

This shipment is correctly described.

Correct weight is _____ lbs.

Subject to verification by the

*L. G. Evans
Umetco Minerals Corp.

P. O. Box 97
Niagara Falls, NY 14301

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding _____ per _____

METALS DIVISION
UNION CARBIDE CORPORATION

Umetco Minerals Corporation

Shipper

Agent

Per A. E. Walick
Permanent postoffice address of shipper
UC 326-34

Per _____

UCCNHT0002525

(1) GENERATOR NAME UMETCO MINERALS CORP
ADDRESS 137- 47TH STREET

CITY NIAGARA FALLS STATE N.Y.

CONTACT G. E. WALICK PHONE 716-278-3361

(2) Consigned to
CHEM NUCLEAR SYSTEMS, INC
P O BOX 726, OSBORN ROAD
BARNWELL, S.C. 29812

BARNWELL WASTE MANAGEMENT FACILITY

Operated by CHEM NUCLEAR SYSTEMS, INC
P O Box 726, Barnwell, South Carolina 29812
(803) 259 1781

RADIOACTIVE SHIPMENT MANIFEST FORM

(3) USE THIS NUMBER ON
ALL CONTINUATION PAGES

VOLUME ALLOCATION NO

PAGE 1

OF 2

0884-323A

(4) TRI-STATE ADDRESS JOPLIN, MISSOURI 64801
CARRIER ADDRESS
TELEPHONE 417-624-3131 SHIPPING DATE 8-15-84
SHIPMENT TYPE VAN SHIPMENT SURFACE EXPOSURE mR/hr
SHIPMENT NO 615-3002 LINER SERIAL NO
DRIVER SIGNATURE DATE

(5) TOTAL FOR EACH CLASS		PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	ID NUMBER
NO OF PACKAGES	WEIGHT (Pounds)		
		Radioactive Material, empty packages	UN2908
		Radioactive Material, fissile, n.o.s. — Radioactive Material	UN2918
<u>8</u>	<u>42215</u>	Radioactive Material, low specific activity, n.o.s. — Radioactive Material	UN2912
		Radioactive Material, n.o.s. — Radioactive Material	UN2982
		Radioactive Material, limited quantity, n.o.s. — Radioactive Material	UN2910
		Radioactive Material, special form, n.o.s. — Radioactive Material	UN2974
		Radioactive Material, instruments and articles — Radioactive Material	UN2911
		Other (Specify)	

(6) SHIPMENT TOTALS								SOURCE (Pounds)
VOLUME (Cubic Feet)	TOTAL NO OF PACKAGES	ACTIVITY (10CFR 20.111)						
		A-L ISOTOPIES	TRITIUM	C-14	Fe-59	I-129		
520	8	.06B	NP	NP	NP	NP	0.8	

(7) TOTAL SNM	
ISOTOPE	GRAMS
U 233	<u>N/A</u>
U 235	<u>1</u>
TOTAL	

(8) TOTAL PALLET VOLUME (CU. FT.) N/A.

(9) WASTE DESCRIPTION CONTAMINATED BUILDING RUBBLE (10) PHYSICAL FORM/ SOLIDIFICATION AGENT SOLID

(13) ☒ Yes () No THIS VEHICLE IS CONSIGNED EXCLUSIVE USE. LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT

(14) IMPORTANT This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

Signature S. E. Walick

Company UMETCO MINERALS CORP

Date 8-17-84

(11) CHEMICAL FORM AND NAME AND % OF CHELATING AGENT(S) METAL OXIDES

(12) WASTE FORM CLASS ☒ A ☐ B ☐ C

(15) Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low level radioactive waste has been inspected in accordance with the requirements of South Carolina Radioactive Material License No. 097 as amended, and the Nuclear Regulatory Commission's License No. 12 13536 01 as amended, and the effective Barnwell Site Disposal Criteria within 48 hours prior to shipment, and further certification is made that the inspection revealed no items of non-compliance with all applicable laws, rules and regulations

Date 8-17-84 By S. E. Walick
Title and Organization CONSULT. Supt
Telephone No 716 278-3361

CNSI USE ONLY

- ☐ This material meets all license requirements
☐ This material was disposed of in accordance with license
☐ Discrepancy

DISPOSAL SITE COPY

Form No CNS 201
(9-83)

SEE INSTRUCTIONS ON REVERSE SIDE
FOR FILLING OUT THIS FORM

Arrival Date Arrival Survey No

Date/Time Buried H. P. Initial

Trench No Location Code

Waste Class Code

Personnel Exposure

Date

Authorized Signature Title

TO: L. ROUSE

SHIPMENT 0884-323A

PAGE 1 of 2

UCCNHT0002527

DATE AND TIME RECEIVED _____

(4) Volume Allocation No 0888-323A

LINER SERIAL # NA

Arrival
date _____ AS# _____

Date/Time
Buried _____ By _____

Radiation
Readings _____ Weight _____

Trench # _____ LOC _____ WCC _____

Total Personnel Exp _____ (mRem)

Project # _____

() RADIOACTIVE MATERIAL, LSA, N.O.S	Total # of Pkgs This Shipment	Total Activity This Shipment	Total Volume This Shipment	Type Containers This Shipment
() RADIOACTIVE MATERIAL, N.O.S				
() RADIOACTIVE MATERIAL, SPECIAL FORM N.O.S	8	.068 mci	520 cu. ft	Wood Boxes
() RADIOACTIVE DEVICE, N.O.S, RAD MATERIAL				

[illegible]

Date _____ by _____
Title and Organization Construction Subt. - Unclad. Minerals Corp.
Telephone No. 716 270-2361

UCCNHT0002528

(1) GENERATOR NAME UMETCO MINERALS CORP.

ADDRESS 137-47TH STREET

CITY Niagara Falls STATE N.Y.

CONTACT G.E. WALCK PHONE 716-278-3361

(2) **consigned to**
CHEM NUCLEAR SYSTEMS, INC
P O BOX 726, OSBORN ROAD
BARNWELL, S C 29812

(3) USE THIS NUMBER ON
ALL CONTINUATION PAGES

VOLUME ALLOCATION NO

0884-323A

PAGE 1

OF 2

BARNWELL WASTE MANAGEMENT FACILITY

Operated by CHEM-NUCLEAR SYSTEMS, INC
P O Box 726, Barnwell, South Carolina 29812
(803) 259-1781

RADIOACTIVE SHIPMENT MANIFEST FORM

(4) TRI-STATE CARRIER ADDRESS JOPLIN, MISSOURI 64801

TELEPHONE 417-624-3131 SHIPPING DATE 8-15-84

SHIPMENT TYPE VAN SHIPMENT SURFACE EXPOSURE _____ mR/hr

SHIPMENT NO 615-3002 LINER SERIAL NO _____

DRIVER SIGNATURE _____ DATE _____

(5) TOTAL FOR EACH CLASS		PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	ID NUMBER
NO OF PACKAGES	WEIGHT (Pounds)		
		Radioactive Material, empty packages	UN2908
		Radioactive Material, fissile, n o s —Radioactive Material	UN2918
<u>8</u>	<u>42215</u>	Radioactive Material, low specific activity, n o s —Radioactive Material	UN2912
		Radioactive Material, n o s —Radioactive Material	UN2982
		Radioactive Material, limited quantity, n o s —Radioactive Material	UN2910
		Radioactive Material, special form, n o s —Radioactive Material	UN2974
		Radioactive Material, instruments and articles—Radioactive Material	UN2911
		Other (Specify)	

(6) SHIPMENT TOTALS							
VOLUME (Cubic Feet)	TOTAL NO OF PACKAGES	ACTIVITY (10 CFR 20.311)					SOURCE (Pounds)
		ALL ISOTOPE	IRITIIUM	C 14	Tc 99	I 129	
<u>520</u>	<u>8</u>	<u>0.068</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>	<u>0.8</u>

(7) TOTAL SNM	
ISOTOPE	GRAMS
U 233	<u>N/A</u>
U 235	<u>N/A</u>
TOTAL	

(9) WASTE DESCRIPTION CONTAMINATED BUILDING RUBBLE (10) PHYSICAL FORM/
SOLIDIFICATION AGENT SOLID

(13) ☒ Yes () No THIS VEHICLE IS CONSIGNED EXCLUSIVE USE LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT

(14) IMPORTANT "This is to certify that the above-named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

Signature G.E. Walck

Company UMETCO MINERALS CORP. Date 8-17-84

(11) CHEMICAL FORM AND NAME AND % OF CHELATING AGENT(S) METAL OXIDES

(12) WASTE FORM CLASS ☒ A ☐ B ☐ C

(15) "Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low level radioactive waste has been inspected in accordance with the requirements of South Carolina Radioactive Material License No 097 as amended, and the Nuclear Regulatory Commission's License No 12-13536 01 as amended, and the effective Barnwell Site Disposal Criteria within 48 hours prior to shipment, and further certification is made that the inspection revealed no items of non compliance with all applicable laws, rules and regulations"

Date 8-17-84 By G.E. Walck

Title and Organization CONSTR. Supt.

Telephone No 716 278-3361

CNSI USE ONLY

☐ This material meets all license requirements

☐ This material was disposed of in accordance with license

☐ Discrepancy _____

DISPOSAL SITE COPY

Form No CNS-201

(9-83)

SEE INSTRUCTIONS ON REVERSE SIDE
FOR FILLING OUT THIS FORM

Arrival Date _____ Arrival Survey No _____

Date/Time Buried _____ H P Initial _____

Trench No _____ Location Code _____

Waste Class Code _____

Personnel Exposure _____

Date _____

Authorized Signature _____ Title _____

UCCNHT0002529

(1) GENERATOR NAME UMATEO MINERALS CORP.

ADDRESS 137-47TH STREET

CITY NIAGARA FALLS STATE N.Y.

CONTACT G.E. WALCK PHONE 716-278-3361

(2) **consigned to**
CHEM NUCLEAR SYSTEMS, INC
P O BOX 726, OSBORN ROAD
BARNWELL, S C 29812

BARNWELL WASTE MANAGEMENT FACILITY

Operated by CHEM-NUCLEAR SYSTEMS, INC
P O Box 726, Barnwell, South Carolina 29812
(803) 259-1781

RADIOACTIVE SHIPMENT MANIFEST FORM

(3) USE THIS NUMBER ON
ALL CONTINUATION PAGES

VOLUME ALLOCATION NO
0804-323A

PAGE 1
OF 2

(4) TAI-STATE CARRIER ADDRESS JOPLIN, MISSOURI 64809

TELEPHONE 417-624-3131 SHIPPING DATE 8-15-84

SHIPMENT TYPE Van SHIPMENT SURFACE EXPOSURE _____ mR/hr

SHIPMENT NO 615-3002 LINER SERIAL NO _____

DRIVER SIGNATURE _____ DATE _____

(5) TOTAL FOR EACH CLASS		PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	ID NUMBER
NO OF PACKAGES	WEIGHT (Pounds)		
		Radioactive Material, empty packages	UN2908
		Radioactive Material, fissile, n o s —Radioactive Material	UN2918
<u>13</u>	<u>22215</u>	Radioactive Material, low specific activity, n o s —Radioactive Material	UN2912
		Radioactive Material, n o s —Radioactive Material	UN2982
		Radioactive Material, limited quantity, n o s —Radioactive Material	UN2910
		Radioactive Material, special form, n o s —Radioactive Material	UN2974
		Radioactive Material, instruments and articles —Radioactive Material	UN2911
		Other (Specify)	

(6) SHIPMENT TOTALS							
VOLUME (Cubic Feet)	TOTAL NO OF PACKAGES	ACTIVITY (10CFR 20.311)					SOURCE (Pounds)
		ALL ISOTOPES	TRITIUM	C 14	Tc 99	I 129	
<u>520</u>	<u>8</u>	<u>006B</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>	<u>0.8</u>

(7) TOTAL SNM	
ISOTOPE	GRAMS
U 233	<u>N/A</u>
U 235	<u>1</u>
TOTAL	

(8) TOTAL PALLET VOLUME (CU FT) N/A

(9) WASTE DESCRIPTION CONTAMINATED BUILDING RUBBLE (10) PHYSICAL FORM / SOLIDIFICATION AGENT SOLID

(13) ☒ Yes () No THIS VEHICLE IS CONSIGNED EXCLUSIVE USE LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT

(14) IMPORTANT "This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

Signature S.E. Walck
Company UMATEO MINERALS CORP Date 8-17-84

(11) CHEMICAL FORM AND NAME AND % OF CHELATING AGENT(S) Metal Oxides

(12) WASTE FORM CLASS ☒ A ☐ B ☐ C

(15) "Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low-level radioactive waste has been inspected in accordance with the requirements of South Carolina Radioactive Material License No 097 as amended, and the Nuclear Regulatory Commission's License No 12 13536-01 as amended, and the effective Barnwell Site Disposal Criteria within 48 hours prior to shipment, and further certification is made that the inspection revealed no items of non compliance with all applicable laws, rules and regulations"

Date 8-17-84 By S.E. Walck
Title and Organization CONST. Supt.
Telephone No 716 278-3361

CNSI USE ONLY

☐ This material meets all license requirements

☐ This material was disposed of in accordance with license

☐ Discrepancy _____

CUSTOMER'S COPY

Form No CNS-201
(9-83)

SEE INSTRUCTIONS ON REVERSE SIDE
FOR FILLING OUT THIS FORM

Arrival Date _____ Arrival Survey No _____

Date/Time Buried _____ H P Initial _____

Trench No _____ Location Code _____

Waste Class Code _____

Personnel Exposure _____

Date _____

Authorized Signature _____ Title _____

UCCNHT0002530

(1) GENERATOR NAME CLANETIC MINERALS CORP
ADDRESS 137- 47TH STREET

CITY MINCON FALLS STATE ALY.

CONTACT G.E. WALSH PHONE 716-278-3361

(2) consigned to
CHEM NUCLEAR SYSTEMS, INC
P O BOX 726, OSBORN ROAD
BARNWELL, S C 29812

(3) USE THIS NUMBER ON
ALL CONTINUATION PAGES

VOLUME ALLOCATION NO

PAGE 1

OF 2

BARNWELL WASTE MANAGEMENT FACILITY

Operated by CHEM-NUCLEAR SYSTEMS, INC
P O Box 726, Barnwell, South Carolina 29812
(803) 259-1781

RADIOACTIVE SHIPMENT MANIFEST FORM

(4) CARRIER TRI-STATE ADDRESS TOPPIN, MISSOURI 64801

TELEPHONE 417-624-7121 SHIPPING DATE 8-15-84

SHIPMENT TYPE Waste SHIPMENT SURFACE EXPOSURE _____ mR/hR

SHIPMENT NO 615-3002 LINER SERIAL NO _____

DRIVER SIGNATURE _____ DATE _____

(5) TOTAL FOR EACH CLASS		PROPER SHIPPING NAME & HAZARD CLASS (PER 49 CFR 172.101)	ID NUMBER
NO OF PACKAGES	WEIGHT (Pounds)	Radioactive Material, empty packages	UN2908
		Radioactive Material, fissile, n o s —Radioactive Material	UN2918
<u>8</u>	<u>10415</u>	Radioactive Material, low specific activity, n o s —Radioactive Material	UN2912
		Radioactive Material, n o s —Radioactive Material	UN2982
		Radioactive Material, limited quantity, n o s —Radioactive Material	UN2910
		Radioactive Material, special form, n o s —Radioactive Material	UN2974
		Radioactive Material, instruments and articles —Radioactive Material	UN2911
		Other (Specify)	

(6) SHIPMENT TOTALS		ACTIVITY (10CFR 20.311)					SOURCE (Pounds)
VOLUME (Cubic Feet)	TOTAL NO OF PACKAGES	ALL ISOTOPLS	TRITIUM	C 14	Te 99	I 129	
<u>520</u>	<u>8</u>	<u>0.068</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>	<u>NP</u>	<u>0.8</u>

(7) TOTAL SNM	
ISOTOPE	GRAMS
U 233	<u>N/A</u>
U 235	<u>1</u>
TOTAL	

(8) TOTAL PALLET VOLUME (CU FT) N/A

(9) WASTE DESCRIPTION CONTAMINATED BUILDING RUBBLE (10) PHYSICAL FORM/ SOLIDIFICATION AGENT SOLID

(11) CHEMICAL FORM AND NAME AND % OF CHELATING AGENT(S) Metal Oxides.

(12) WASTE FORM CLASS ☒ A ☐ B ☐ C

(13) ☒ Yes () No THIS VEHICLE IS CONSIGNED EXCLUSIVE USE LOADING AND UNLOADING MUST BE ACCOMPLISHED BY CONSIGNOR OR CONSIGNEE OR HIS DESIGNATED AGENT

(14) IMPORTANT "This is to certify that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation

Signature G.E. Walsh

Company CLANETIC MINERALS CORP Date 8-17-84

(15) "Certification is hereby made to the South Carolina Department of Health and Environmental Control that this shipment of low level radioactive waste has been inspected in accordance with the requirements of South Carolina Radioactive Material License No 097 as amended, and the Nuclear Regulatory Commission's License No 12 13536 01 as amended, and the effective Barnwell Site Disposal Criteria within 48 hours prior to shipment, and further certification is made that the inspection revealed no items of non compliance with all applicable laws, rules and regulations "

Date 8-17-84 By G.E. Walsh

Title and Organization CONS. Supt.

Telephone No 716 278-3361

CNSI USE ONLY

☐ This material meets all license requirements

☐ This material was disposed of in accordance with license

☐ Discrepancy _____

TRIPLICATE COPY

Form No CNS-201

(9-83)

SEE INSTRUCTIONS ON REVERSE SIDE
FOR FILLING OUT THIS FORM

Arrival Date _____ Arrival Survey No _____

Date/Time Buried _____ H P Initial _____

Trench No _____ Location Code _____

Waste Class Code _____

Personnel Exposure _____

Date _____

Authorized Signature _____ Title _____

UCCNHT0002531

LINDE DIVISION • GAS PRODUCTS COMPLEX
4501 ROYAL AVENUE NIAGARA FALLS, N.Y. 14304

WEIGHT TICKET

44-107-7420

4097 T. B. ...

00:43409/15/94

00000000000000000000000000000000

067 228400

[illegible]

Union Carbide Corporation

LINDE DIVISION • GAS PRODUCTS COMPLEX

4501 ROYAL AVENUE NIAGARA FALLS, N.Y. 14304

WEIGHT TICKET

10:21A 08/15/84
GROSS 10320 lb

10:22A 08/15/84
0000 0000
22 2 22
GROSS 39180 lb

10:23A 08/15/84
0000 0000
22 2 22
GROSS 70900 lb

10:23A 08/15/84
0000 0000
22 2 22
GROSS 31400 lb

42500

3.0 AT DESTINATION (Union Carbide Corporation, Uravan, Colorado)

- 3.1 Give notification of arrival and receive guidance to unloading site.
- 3.2 Examine security seals and inspect outside of truck for damage or pilfering.
- 3.3 The shipment must be unloaded by Consignor from the transport vehicle in which originally loaded.
- 3.4 UCC or its representative will certify vehicles clean and available for Unrestricted Use and decontaminate if necessary.

4.0 PENALTY

- 4.1 Any deviation from these instructions or violations of State and Federal laws could result in carrier penalty.

Billy F. Weir
Driver's Signature

8-15-84
Date

Form RHA-PNC
(5/80)SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTRL
Radioactive Waste Shipment Prior Notification and Manifest Form

See Reverse Side for Instructions

1. Name and Address of Shipper Umetco Minerals Corporation 137 47th Street Niagara Falls, NY 14302		2. Person Responsible for Radioactive Waste Shipment (a) Name G. E. Walck (b) Title Construction Superintendent (c) Telephone No. (716) 278-3361	
3. Radioactive Waste Transport Permit No 0211-31-84-X		4. Shipment Identification No. 0884-323A	
5. Location from which waste will be shipped Same as (1) Above		6. Name and Address of Consignee Chem-Nuclear Systems, Inc. P.O. Box 726 Barnwell, South Carolina 29812	
7. Scheduled Date of Departure of Shipment. August 15, 1984		8. Estimated Date of Arrival of Shipment. August 17, 1984	
9. Carrier Tri-State Motor Transit	10. Type of Transport Vehicle Closed Van	11. Trailer No. and Owner (if available)	
12. Routes shipment will follow in State of South Carolina (Be Specific) I-20, I-26, US-321, S.C. 3 and S.C. 64			

Manifest Summary

13. Type Container or Cask Wood Boxes	14. Container Spec CFR 49 173.392 (c)	15. Total No. of Containers 8
16. Waste Description, Physical and Chemical Form Metal Oxides, Bldg. Rubble, Wood and Plant Hardware	17. Prominent Radionuclides Uranium (Nat.) .0028 Thorium (Nat.) .004	
18. Total Curies .068	19. Transport Group III	20. Total Cubic Feet 520
21. Waste Classification <input checked="" type="checkbox"/> Radioactive LSA <input type="checkbox"/> Bulk LSA Normal Form Special Form Fissile <input type="checkbox"/> Radioactive LSA greater than Type A quantities <input type="checkbox"/> Limited quantities and radioactive devices <input type="checkbox"/> Type A quantity <input type="checkbox"/> Type B quantity <input type="checkbox"/> Large quantity <input type="checkbox"/> Type A quantity <input type="checkbox"/> Type B quantity <input type="checkbox"/> Large quantity <input type="checkbox"/> Class I <input type="checkbox"/> Class II <input type="checkbox"/> Class III		


UN2912

CERTIFICATION

I hereby certify on behalf of the above-named shipper to the South Carolina Department of Health and Environmental Control that the information provided herein is complete and correct to the best of my knowledge, and that the shipper has complied with all the provisions as required by Act No. 499 of 1980, the South Carolina Radioactive Waste Transportation and Disposal Act

Date August 8, 1984

G. E. Walck - Construction Supt.
Typed Name and Title of Agent of Shipper


Signature (G. E. Walck)

CONSIGNEE ACKNOWLEDGEMENT

This acknowledges to the South Carolina Department of Health and Environmental Control that the above-described radioactive waste shipment was received

Date of Delivery _____

Signature of Consignee or authorized Agent

Typed or Printed Name and Title

DHEC 802

Original: S. Carolina (5/80)
Copy: Chem-Nuclear
(Copies of this form may be reproduced locally as needed)

UCCNHT0002535

General Instructions and Information

1. This form is to be used to provide the Department with prior notification of radioactive waste shipments transported into or within the State of South Carolina. This notification is to be made 72 hours before the expected date of arrival in the State. All written notices should be mailed to:
Bureau of Radiological Health
Radioactive Waste Management Section
S.C. Dept. of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201
2. A separate form shall be submitted for each radioactive waste shipment.
3. Prior notification is required of all radioactive waste shipments as defined in paragraph 2 of Interim Regulations for the Transportation of Radioactive Waste into or within South Carolina except as provided in paragraph 4.1.2 of the Regulation.
4. The "Manifest Summary" portion of this form will satisfy requirements of providing the Department with a shipping manifest, however, it does not satisfy the requirements of shipping documents which shall accompany the shipments as required by DOT Regulations and the disposal facility's license and criteria.
5. A copy of this completed form shall be provided to the carrier and all drivers of the radioactive waste shipment.
6. Upon delivery of the shipment to the consignee, acknowledgement of receipt shall be obtained, and a copy of this form and the shipper/carrier's certification form shall be returned to the Department.

Specific Instructions

Item Number

1. Self Explanatory
2. Self Explanatory
3. This item applies to all shipments of radioactive waste transported to and within the State of South Carolina.
4. Each shipment of radioactive waste shall be identified in some manner by the shipper. This number can be a radioactive shipment record number, bill of lading number, allocation number, etc. The identification number shall only be used once to identify the one shipment for which notification is being made.
5. Self Explanatory
6. Indicate in this item the disposal facility, company, organization, etc., to which this shipment has been consigned.
7. Self Explanatory
8. For through shipments, indicate in this item estimated date shipment will pass through the state.
9. Self Explanatory
10. & 11. Applies only to exclusive use, sole use, and full load shipments.
12. All routing information must be specific. You should check with carrier to insure routes you prescribe are appropriate. The carrier is responsible to inform the Department of any changes of routes in South Carolina after departure.
- 13 thru 21. Self Explanatory

Certification: To be signed only by an authorized representative or agent of the shipper and carrier.